

WHAT IS CLAIMED IS:

- 1 1. A liquid ejecting apparatus comprising:
 - 2 a liquid ejecting head, having a plurality of nozzles for ejecting a liquid
 - 3 drop formed at a lower face thereof;
 - 4 a wiping member, wiping an opening portion of the nozzle;
 - 5 a carriage, mounted with the liquid ejecting head, and moving in a
 - 6 horizontal direction relative to the wiping member; and
 - 7 an inclined plate, mounted on the carriage at a predetermined space
 - 8 from the liquid ejecting head, and formed with an inclined face having a rising
 - 9 inclination as being far from the liquid ejecting head,
- 10 wherein a projected portion is provided on at least one of the liquid
- 11 ejecting head and the inclined plate such that an opening portion at a lower side
- 12 of the space is smaller than an upper portion of the space.
- 1 2. The liquid ejecting apparatus as set forth in claim 1, wherein a lower
- 2 face of the inclined plate on a side of the liquid ejecting head and a lower face
- 3 of the liquid ejecting head on a side of the inclined plate are substantially flush
- 4 with each other.
- 1 3. The liquid ejecting apparatus as set forth in claim 1, wherein a
- 2 clearance of the opening portion of the space is smaller than a width of the
- 3 wiping member in the horizontal direction.
- 1 4. The liquid ejecting apparatus as set forth in claim 1, wherein the inclined

2 plate is formed with a discharge hole communicating the space with an external
3 portion to penetrate a base end portion of the projected portion and a lower face
4 thereof.

1 5. A liquid ejecting apparatus comprising:
2 a liquid ejecting head, having a plurality of nozzles for ejecting a liquid
3 drop formed at a lower face thereof;
4 a wiping member, wiping an opening portion of the nozzle;
5 a carriage, mounted with the liquid ejecting head, and moving in a
6 horizontal direction relative to the wiping member; and
7 an inclined plate, mounted on the carriage at a predetermined space
8 from the liquid ejecting head, and formed with an inclined face having a rising
9 inclination as being far from the liquid ejecting head,
10 wherein a projected portion for adhering or repelling the liquid invading
11 the space is provided on at least one of the liquid ejecting head and the inclined
12 plate.

1 6. The liquid ejecting apparatus as set forth in claim 5, wherein the
2 projected portion is provided on the inclined plate; and
3 wherein the projected portion is provided on the liquid ejecting head so
4 as to overlap a clearance between the projected portion of the inclined plate
5 and the liquid ejecting head as viewed in an extending direction of the space.

1 7. The liquid ejecting apparatus as set forth in claim 5, wherein the
2 projected portion is provided on the liquid ejecting head; and

3 wherein the projected portion is provided on the inclined plate so as to
4 overlap a clearance between the projected portion of the liquid ejecting head
5 and the inclined plate as viewed in an extending direction of the space.

1 8. A liquid ejecting apparatus comprising:
2 a liquid ejecting head, having a plurality of nozzles for ejecting a liquid
3 drop formed at a lower face thereof;
4 a wiping member, wiping an opening portion of the nozzle;
5 a carriage, mounted with the liquid ejecting head, and moving in a
6 horizontal direction relative to the wiping member; and
7 an inclined plate, mounted on the carriage at a predetermined space
8 from the liquid ejecting head, and formed with an inclined face having a rising
9 inclination as being far from the liquid ejecting head,
10 wherein an absorbing member is arranged at the space.

1 9. The liquid ejecting apparatus as set forth in claim 8, the absorbing
2 member is comprised of a porous material; and
3 wherein the absorbing member is arranged to the space by contracting
4 a lower portion thereof.

1 10. A liquid ejecting apparatus comprising:
2 a liquid ejecting head, having a plurality of nozzles for ejecting a liquid
3 drop formed at a lower face thereof;
4 a wiping member, wiping an opening portion of the nozzle;
5 a carriage, mounted with the liquid ejecting head, and moving in a

6 horizontal direction relative to the wiping member; and
7 an inclined plate, mounted on the carriage at a predetermined space
8 from the liquid ejecting head, and formed with an inclined face having a rising
9 inclination as being far from the liquid ejecting head,
10 wherein a hermetically sealed material is arranged at the space.

1 11. A liquid ejecting apparatus comprising:
2 a liquid ejecting head, having a plurality of nozzles for ejecting a liquid
3 drop;
4 a wiping member, wiping an opening portion of the nozzle;
5 a carriage, mounted with the liquid ejecting head, and moving in a
6 horizontal direction relative to the wiping member; and
7 a controller, stops a movement of the wiping member relative to the
8 carriage for a predetermined time period in a state that the wiping member is
9 brought into press contact with the liquid ejecting head after wiping the liquid
10 ejecting head.

1 12. The liquid ejecting apparatus as set forth in claim 11, wherein an
2 inclined plate is mounted on the carriage, and is formed with an inclined face
3 having a rising inclination as being far from the liquid ejecting head; and
4 wherein the controller temporarily stops the movement of the wiping
5 member relative to the carriage in a state that the wiping member is brought into
6 press contact with the inclined plate after wiping the liquid ejecting head.

1 13. The liquid ejecting apparatus as set forth in claim 11 wherein the wiping

2 member is comprised of an elastic material;
3 wherein the wiping member has a wiping face for wiping the opening
4 portion of the nozzle, the wiping face being inclined relative to the horizontal
5 direction by a predetermined angle.

1 14. The liquid ejecting apparatus as set forth in claim 11, wherein the wiping
2 member is moved relative to the carriage in a second horizontal direction
3 substantially orthogonal to the horizontal direction after the movement of the
4 wiping member is stopped for the predetermined time period in a state that the
5 wiping member is brought into press contact with the liquid ejecting head.

1 15. The liquid ejecting apparatus as set forth in claim 11, wherein the wiping
2 member has a rectangular shape in a horizontal section; and
3 wherein a longitudinal direction of the rectangular shape of the wiping
4 member is substantially in orthogonal to the horizontal direction.

1 16. The liquid ejecting apparatus as set forth in claim 11, wherein the wiping
2 member is comprised of an elastic member;
3 wherein the wiping member is moved in a direction substantially
4 orthogonal to a direction in which the wiping member is bent after the
5 predetermined time period is passed in the state that the wiping member is
6 brought into press contact with the liquid ejecting head such that the wiping
7 member is released from the press contact state.

1 17. The liquid ejecting apparatus as set forth in claim 11, wherein a front

2 end of the wiping member has a tapered shape.

1 18. A method for cleaning, comprising the steps of:
2 providing a liquid ejecting head having a plurality of nozzles for ejecting
3 a liquid drop;
4 providing a carriage mounted with the liquid ejecting head;
5 providing a wiping member;
6 moving the carriage in a horizontal direction relative to the wiping
7 member;
8 wiping an opening portion of the nozzle by the wiping member; and
9 stopping a movement of the wiping member relative to the carriage for a
10 predetermined time period in a state that the wiping member is brought into
11 press contact with the liquid ejecting head after the wiping step.

1 19. The method as set forth in claim 18, further comprising the steps of:
2 providing a plate mounted on the carriage, and having an inclined face
3 in which a lower portion is arranged on a side of the liquid ejecting head thereof;
4 stopping a movement of the wiping member relative to the carriage in a
5 state that the wiping member is brought into press contact with the plate after
6 the wiping step.

1 20. The cleaning method as set forth in claim 18, further comprising the
2 step of moving the wiping member relative to the carriage in a direction
3 substantially orthogonal to the horizontal direction so that the wiping member is
4 released from the state of being brought into press contact with the liquid

5 ejecting head.